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P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

DATE MAILED: 11/01/2010

### NOTICE OF ALLOWANCE AND FEE(S) DUE

236% 7590 11/01/2010 QUALCOMM INCORPORATED 5775 MOREHOUSE DR.

SAN DIEGO, CA 92121

EXAMINER
AHN, SAM K

ART UNIT PAPER NUMBER

2611

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650 272	08/28/2003	Haitao Zhang	020306	6605

ADD N TYPE SMALL ENTITY ISSUE FOR DUE DUEL OUTCOME FOR DREV PAID ISSUE FOR TOTAL FOR NOTE DUE. DATE DU

TITLE OF INVENTION: METHOD AND APPARATUS FOR IMPROVING CHANNEL ESTIMATE BASED ON SHORT SYNCHRONIZATION CODE

 APPLN. TYPE
 SMALL ENTITY
 ISSUE FEE DUE
 PUBLICATION FEE DUE
 PREV. PAID ISSUE FEE
 TOTAL FEE(S) DUE
 DATE DUE

 nonprovisional
 NO
 \$1510
 \$300
 \$0
 \$1810
 02/01/2011

 THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT.

PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and I/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless correct maintenance fee notifica	ed below or directed otl	ng the Patent, advance on nerwise in Block 1, by (	a) specifying a new o	orres	pondence address;	and/or	(b) indicating a sepa	arate	"FEE ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)				Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.					
QUALCOMM 5775 MOREHO SAN DIEGO, C	INCORPORATE JUSE DR.	/2010 ED		I her State addro trans	Cer eby certify that the seporal Service vessed to the Mail mitted to the USP	tificate is Fee(s vith suf Stop TO (57	of Mailing or Trans s) Transmittal is being ficient postage for first ISSUE FEE address 1) 273-2885, on the d	missi g dep st cla abov ate ii	ion tosited with the United ss mail in an envelope we, or being facsimile adicated below.
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APPLICATION NO.	FILING DATE		FIRST NAMED INVEN	TOR		ATTO	RNEY DOCKET NO.	cc	ONFIRMATION NO.
10/650,272 TITLE OF INVENTION	08/28/2003 i: METHOD AND APP/	ARATUS FOR IMPROV	Haitao Zhang ING CHANNEL ESTI	MAT	TE BASED ON SI	IORT S	020306 YNCHRONIZATIO	v co	6605 DDE
APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE D	UE	PREV. PAID ISSU	E FEE	TOTAL FEE(S) DUE	Т	DATE DUE
nonprovisional	NO	\$1510	\$300		\$0		\$1810		02/01/2011
EXAM	TINER	ART UNIT	CLASS-SUBCLASS						
	SAM K	2611	375-150000	_					
"Fee Address" inc PTO/SB/47; Rev 03-1 Number is required.  3. ASSIGNEE NAME A	condence address (or Cha B/122) attached. lication (or "Fee Address 32 or more recent) attach LND RESIDENCE DAT. less an assignee is ident th in 37 CFR 3.11. Comp	inge of Correspondence		nativ ingle or a attor I be p r typ re pa an a	ely, elirm (having as a gent) and the namely or agents. If printed.  e) ttent. If an assignassignment.	memb es of uj no nam ee is id	er a 2	ocum	nent has been filed for
Please check the appropr	riate assignee category or	categories (will not be p	rinted on the patent):	۵	Individual 🗖 Co	orporati	on or other private gro	oup e	ntity Government
4a. The following fee(s) are submitted:    Issue Fee   Publication Fee (No small entity discount permitted)   Advance Order - # of Copies    5. Change in Entity Status (from status indicated above)			A. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)   A. check is enclosed.   Payment ty-crofit card. Form PTO-2038 is attached.   The Director is hereby suthorized to charge the required fee(s), any deficiency, or credit any everypowent, to Deport Account Number (exclose an extra copy of this form).						
	itus (irom status indicate is SMALL ENTITY stati		☐ b. Applicant is no	long	ger claiming SMA	LENT	TITY status. See 37 Cl	FR 1	.27(g)(2).
NOTE: The Issue Fee ar	d Publication Fee (if req	uired) will not be accepte tes Patent and Trademark	d from anyone other the	an th	ne applicant; a regi	stered a	ittorney or agent; or th	ne ass	signee or other party in
Authorized Signature					Date				
Typed or printed name			Registration No.						
This collection of inform an application. Confider submitting the complete this form and/or suggest Box 1450, Alexandria, V Alexandria, Virginia 22:	nation is required by 37 C titality is governed by 35 d application form to the ions for reducing this bu /irginia 22313-1450. DC 313-1450.	CFR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR	on is required to obtain 1.14. This collection i depending upon the i e Chief Information O COMPLETED FORM	or re s esti ndivi ffice S TC	etain a benefit by t mated to take 12 idual case. Any co r, U.S. Patent and THIS ADDRESS	he publ ninutes mment Traden i. SENI	ic which is to file (and to complete, includir s on the amount of tin ark Office, U.S. Dep. O TO: Commissioner	I by I ig ga me yo artme for F	the USPTO to process) thering, preparing, and ou require to complete ent of Commerce, P.O. latents, P.O. Box 1450,

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



# UNITED STATES PATENT AND TRADEMARK OFFICE

#### UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/650,272	08/28/2003	Haitao Zhang	020306	6605		
23696 75	90 11/01/2010		EXAM	UNER		
QUALCOMM INCORPORATED 5775 MOREHOUSE DR.			AHN, SAM K			
			ART UNIT	PAPER NUMBER		
SAN DIEGO, CA	92121		2611			
			DATE MAILED: 11/01/2010			

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 497 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 497 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Notice of Allowability

Application No.	Applicant(s)
10/650,272	ZHANG, HAITAO
Examiner	Art Unit
SAM K. AHN	2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- This communication is responsive to 10/20/10.
- The allowed claim(s) is/are 1-77.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - b) \( \subseteq \text{Some\*} \) c) \( \subseteq \text{None} \) of the:
    - 1. T Certified copies of the priority documents have been received.
    - 2. Certified copies of the priority documents have been received in Application No. \_\_
    - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
  - 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. 

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. | Notice of References Cited (PTO-892)
- Notice of Draftperson's Patent Drawing Review (PTO-946).
- 3. Information Disclosure Statements (PTO/SB/08),
- Pacer No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit
- of Biological Material /Sam K. Ahn/

- 5. Notice of Informal Patent Application 6 Interview Summery (PTO-413)
- Paper No./Mail Date T Examiner's Amendment/Comment
- 8. T Examiner's Statement of Reasons for Allowance
- 9. ☐ Other 10/21/10

Primary Examiner, Art Unit 2611